



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,787	06/13/2006	Masato Kaneda	Q79148	5976
23373 7590 05/26/2010				
SUGHRUE MION, PLLC				
2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800				
WASHINGTON, DC 20037				
EXAMINER				
BOFF, ANCA				
ART UNIT		PAPER NUMBER		
1795				
NOTIFICATION DATE		DELIVERY MODE		
05/26/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM
USPTO@SUGHRUE.COM

Office Action Summary

Application No.

10/582,787

Applicant(s)

KANEDA ET AL.

Examiner

ANCA EOOF

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,6,12,14,16,18 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,6,12,14,16,18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 3, 6, 12, 14, 16, 18 and 19 are pending. Claims 1, 2, 4, 5, 7-11, 13, 15 and 17 have been cancelled.
2. The foreign priority document JP 2003-418112 filed on December 16, 2003 was received and acknowledged. However, in order to benefit of the earlier filing date, a certified English translation is required.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 10, 2010 has been entered.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ

Art Unit: 1795

619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 3, 6, 12, 16, 18 and 19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2, 10, 19 of copending Application No. 11/794,547 (US Pg-Pub 2008/0167210).

Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim a photosensitive composition remover solution which may comprise 10-20% of aromatic hydrocarbons with nine or more carbon atoms and up to 80% by mass of an alkylene glycol monomethyl ether (see claims 2).

Both applications also claim a remover which may comprise aromatic hydrocarbons with nine or more carbon atoms, an alkylene glycol monomethyl ether, such as propylene glycol monomethyl ether and at least one solvent selected from alkylene glycol monoalkyl ether carboxylic acid esters (glycol ether carboxylates), alkoxycarboxylic acid esters, ketones, acetic acid esters, such as n-propyl acetate, isopropyl acetate, n-butyl acetate, n-amyl acetate, isoamyl acetate, sec-amyl acetate (see claims 2, 10 and 19).

Art Unit: 1795

The ranges for the aromatic hydrocarbons with nine or more carbon atoms, an alkylene glycol monomethyl ether and at least one solvent selected from alkylene glycol monoalkyl ether carboxylic acid esters (glycol ether carboxylates), alkoxycarboxylic acid esters, ketones, acetic acid esters overlap.

The removing composition is used for removal of a pigment-containing acrylic photosensitive compositions (see claim 11).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraph of 35 U.S.C. 102 that forms the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 3, 12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kikuhara et al. (JP 04-182062).

With regard to claim 3, Kikuhara et al. teach a removing fluid comprising 15% of aromatic hydrocarbons and 85% of propylene glycol monomethyl ether (see line 7 of Table 1, page 4).

The aromatic hydrocarbon may be an aromatic hydrocarbon with 9 carbon atoms, such as trimethyl benzene, methylethyl benzene, propyl benzene (see abstract and the first columns on page 3).

Art Unit: 1795

This removing fluid is equivalent to the remover of the instant application, which consists essentially of 15% by mass of a C₉-based aromatic hydrocarbon and 85% by mass of a glycol ether.

The limitations that the remover is a "photosensitive composition remover used for removal of an uncured photosensitive composition" and "wherein the photosensitive composition remover is used for removal of a photosensitive composition containing a pigment" are limitations regarding the intended use and add no patentable weight to the claim.

Therefore, the removing fluid of Kikuhara et al. fully anticipates the remover of the instant application.

Claim 12 introduces the limitation for the remover to be "used for removal of an acrylic photosensitive composition containing a pigment". This limitation is only a limitation regarding the intended use and adds no patentable weight of the remover of claim 3.

Therefore, the removing fluid of Kikuhara et al. fully anticipates the remover of the instant application.

With regard to claim 14, aromatic hydrocarbon with 9 carbon atoms (trimethyl benzene, methylethyl benzene, propyl benzene) and propylene glycol monomethyl ether are solvents.

8. Claims 3, 12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Serdiuk et al. (US Patent 5,276,096).

With regard to claim 3, Kikuhara et al. teach a solvent blend of 80:20 primary amyl acetate and Solvesso 100 (see column 7, lines 25-26).

Art Unit: 1795

This solvent blend is equivalent to a composition consisting essentially of 20% by mass of a C₉ alkylbenzene-based solvent (as per page 11 of the specification) and 80% by mass of a carboxylic acid ester excluding ethyl acetate.

.The solvent blend has the same composition as the remover of the instant application so it could be used as such.

The limitations that the remover is a “photosensitive composition remover used for removal of an uncured photosensitive composition” and “wherein the photosensitive composition remover is used for removal of a photosensitive composition containing a pigment” are limitations regarding the intended use and add no patentable weight to the claim.

Therefore, the solvent blend of Serdiuk et al. fully anticipates the remover of the instant application.

Claim 12 introduces the limitation for the remover to be “used for removal of an acrylic photosensitive composition containing a pigment”. This limitation is only a limitation regarding the intended use and adds no patentable weight of the remover of claim 3.

Therefore, the solvent blend of Serdiuk et al. fully anticipates the remover of the instant application.

With regard to claim 14, Solvesso 100 and primary amyl acetate are solvents.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3, 12, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyanagi et al. (WO 03/072634, wherein the citations are from the English equivalent document US Pg-Pub 2005/0153530) in view of Wyatt et al. (US Pg-Pub 2003/0118946).

With regard to claims 3 and 16, Koyanagi et al. disclose that the developer for a photosensitive composition may be a solvent, such as cyclohexanone, tetramethylbenzene, propylene glycol monomethyl ether acetate (par.0123). The Koyanagi reference fails to disclose that such solvents may be used in combination/mixture as developer.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention to use more than one solvent for the developer of Koyanagi et al., for the same purpose.

"It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980) (MPEP 2144.06.I—Combining Equivalents Known For the Same Purpose).

Art Unit: 1795

The tetramethylbenzene of Koyanagi et al. is equivalent to the "C₁₀-based aromatic hydrocarbon" of claim 3.

Cyclohexanone and propylene glycol monomethyl ether acetate of Koyanagi et al. are equivalent to the solvent other than aprotic polar solvents of the instant application, which are a ketone and a glycol ether carboxylate.

Koyanagi et al. fail to disclose the amount of tetramethylbenzene in the developer.

Wyatt et al. disclose developing solvent compositions, wherein such composition comprises mixtures of solvents including aromatic hydrocarbons (see table 1, par.0062). Wyatt et al. disclose mixtures of solvents comprising 20% by mass of aromatic hydrocarbons (see Example 4 in table 1, par.0062).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use tetramethylbenzene in an amount of 20% by mass in a solvent mixture used as developer for the photosensitive resin of Koyanagi et al., as taught by Wyatt et al., with a reasonable expectation of success.

Koyanagi et al. shows that the developer dissolves the unexposed areas of the photosensitive resin (par.0171) so it is a photosensitive composition remover.

The fact that the remover is used "for removal of an uncured photosensitive composition" and "for removal of a photosensitive composition containing a pigment" is merely an intended use and adds no patentable weight to the claim.

Art Unit: 1795

Therefore, the developer of Koyanagi modified by Wyatt is equivalent to the photosensitive composition remover of the instant application.

Claim 12 contains only limitations regarding the intended use of the remover composition of claim 3 and such limitations do not add any patentable weight to the claim. Therefore, the developer of Koyanagi modified by Wyatt meets the limitations of the claim.

With regard to claim 14, tetramethylbenzene, cyclohexanone and propylene glycol monomethyl ether acetate are solvents.

11. Claims 3, 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamayachi et al. (US Patent 4,943,516) in view of Wyatt et al. (US Pg-Pub 2003/0118946).

With regard to claims 3, 16 and 19, Kamayachi et al. teach a developing solution for a photosensitive resin composition, wherein the developing solution may comprise solvents such as cyclohexanone, propylene glycol monomethyl ether and tetramethylbenzene (column 15, lines 43-51).

Kamayachi et al. fail to disclose that such solvents may be used in combination/mixture as developer.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention to use more than one solvent for the developer of Kamayachi et al., for the same purpose (MPEP 2144.06.I—Combining Equivalents Known For the Same Purpose).

The tetramethylbenzene of Kamayachi et al. is equivalent to the C₁₀-based aromatic hydrocarbon of claim 3 and to the aromatic hydrocarbon with more than 9 carbon atoms of claim 19.

Cyclohexanone and propylene glycol monomethyl ether of Kamayachi et al. is equivalent to a solvent other than aprotic polar solvents of the instant application, which are a ketone and a glycol ether.

Kamayachi et al. fail to disclose the amount of tetramethylbenzene in the developer.

Wyatt et al. disclose developing solvent compositions, wherein such composition comprises mixtures of solvents including aromatic hydrocarbons (see table 1, par.0062). Wyatt et al. disclose mixtures of solvents comprising 20% by mass of aromatic hydrocarbons (see Example 4 in table 1, par.0062).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use tetramethylbenzene in an amount of 20% by mass in a solvent mixture used as developer for the photosensitive resin of Kamayachi et al., as taught by Wyatt et al., with a reasonable expectation of success.

Kamayachi et al. further show that the unexposed portion of the photosensitive resin composition coating is developed with the developer solution (column 16, lines 15-17). Therefore, the developer of Kamayachi modified by Wyatt is a "photosensitive composition remover".

The fact that the remover is used "for removal of an uncured photosensitive composition" and "for removal of a photosensitive composition

Art Unit: 1795

containing a pigment" is merely an intended use and adds no patentable weight to the claim.

Therefore, the developer of Kamayachi modified by Wyatt is equivalent to the photosensitive composition remover of the instant application.

12. Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamayachi et al. (US Patent 4,943,516) in view of Wyatt et al. (US Pg-Pub 2003/0118946) as applied to claim 3 and in further view of Dhillon (US Patent 4,822,723).

With regard to claims 6 and 18, Kamayachi modified by Wyatt teach a developer which may comprise a mixture of tetramethylbenzene, propylene glycol monomethyl ether and cyclohexanone (see paragraph 11 above). However, Kamayachi and Wyatt fail to disclose the amount of propylene glycol monomethyl ether in the developer.

Dhillon teaches a developer composition for printing plates (abstract), wherein said developer composition may comprise between 25-75% by weight of propylene glycol monomethyl ether (column 3, lines 19-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use propylene glycol monomethyl ether in an amount between 25% and 75% by weight in the developer composition of Kamayachi modified by Wyatt, with a reasonable expectation of success.

Response to Arguments

13. The Declaration under 37 CFR 1.132 filed on February 12, 2010 is insufficient to overcome the rejection of claim 3 based upon Koyanagi (WO 03/072634, wherein the citations are from the English equivalent document US Pg-Pub 2005/0153530) in view of Wyatt et al. (US Pg-Pub 2003/0118946) and Kamayachi et al. (US Patent 4,943,516) in view of Wyatt et al. (US Pg-Pub 2003/0118946) as set forth in the last Office action because the Declaration does not compare the remover solution of the instant application with a solution of the closest prior art of record.

In the solvent mixture (a) (see page 2 of the Declaration), the applicant uses 20% by weight of diisopropylbenzene, 20% by weight of benzyl alcohol and 60% by weight of isoparafrican hydrocarbon (Solfine^R C-550).

However, this is not developer in Example 4 of Wyatt et al. as the applicant suggests.

Wyatt et al. uses a mixture of 20% by weight of diisopropylbenzene, 20% by weight of benzyl alcohol and 60% by weight of isoparafrican hydrocarbon EXXON Isopar^R L.

The applicant does not explain if the isoparafrican hydrocarbon Solfine^R C-550 is equivalent to the isoparafrican hydrocarbon EXXON Isopar^R L of Wyatt et al.

Therefore, it cannot be established that the solvent mixture (a) is equivalent to the closest prior art of record (Wyatt et al.).

An affidavit or declaration under 37 CFR 1.132 must compare the claimed subject matter with the closest prior art to be effective to rebut a prima facie case of obviousness. *In re Burckel*, 592 F.2d 1175, 201 USPQ 67 (CCPA 1979). "A comparison of the claimed invention with the disclosure of each cited reference to determine the number of claim limitations in common with each reference, bearing in mind the relative importance of particular limitations, will usually yield the closest single prior art reference." *In re Merchant*, 575 F.2d 865, 868, 197 USPQ 785, 787 (CCPA 1978) (emphasis in original). Where the comparison is not identical with the reference disclosure, deviations therefrom should be explained. *In re Finley*, 174 F.2d 130, 81 USPQ 383 (CCPA 1949), and if not explained should be noted and evaluated, and if significant, explanation should be required. *In re Armstrong*, 280 F.2d 132, 126 USPQ 281 (CCPA 1960) (deviations from example were inconsequential). (MPEP 716.02(e) [R-2] Comparison With Closest Prior Art)

14. Applicant's arguments filed on February 12, 2010 have been fully considered but they are not persuasive.

On page 6 of the Remarks, the applicant argues that Koyanagi et al. (WO 03/072634, wherein the citations are from US Pg-Pub 2005/0153530) do not teach glycol monomethyl ethers.

The examiner would like to note that claim 19 is rejected under 35 USC 103(a) over Kamayachi et al. (US Patent 4,943,516) in view of Wyatt et al. (US Pg-Pub 2003/0118946). Kamayachi et al. clearly teach that a developer may comprise propylene glycol monomethyl ether (column 15, lines 43-53).

On pages 6-7 of the Remarks, the applicant emphasizes the unexpected results of the solvent mixture (3) of the Declaration under 37 CFR 1.132 which is within the scope of claim 3 of the instant application.

However, as shown above in paragraph 13 of the Office Action, the Declaration under 37 CFR 1.132 filed on February 12, 2010 does not compare

Art Unit: 1795

the solvent mixture of the instant application with a mixture taught in the closest prior art (Wyatt et al.).

Therefore, the rejections over Koyanagi (WO 03/072634, wherein the citations are from the English equivalent document US Pg-Pub 2005/0153530) in view of Wyatt et al. (US Pg-Pub 2003/0118946) and Kamayachi et al. (US Patent 4,943,516) in view of Wyatt et al. (US Pg-Pub 2003/0118946) are maintained.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANCA EOFF whose telephone number is (571)272-9810. The examiner can normally be reached on Monday-Friday, 6:30 AM-4:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. E./

Examiner, Art Unit 1795

/Cynthia H Kelly/

Supervisory Patent Examiner, Art Unit 1795